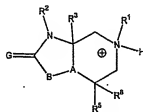


**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims 1-16:**

1. (currently amended) A compound of the formula:



or a pharmaceutically acceptable salt thereof, wherein:

A is CH or nitrogen;

B is  $-\text{CH}_2-$ ,  $-\text{CHF}-$ ,  $-\text{CF}_2-$ ,  $\text{NR}_4$  or O, with the proviso that when A is N, B is  $-\text{CH}_2-$ ,  $-\text{CHF}-$  or  $-\text{CF}_2-$ ;

G is oxygen or  $=\text{N}-\text{CN}$ ,

$\text{R}_1$  is hydrogen or  $\text{C}_{1-6}$  alkyl;

$\text{R}_2$  is hydrogen;  $\text{C}_{1-10}$  alkyl optionally substituted

with  $\text{C}_{1-6}$  alkoxy or halogen; aralkyl, a  $-\text{CH}_2$ -heterocycle or a  $-\text{CH}_2-\text{C}_5$  cycloalkyl ring each of which may be optionally substituted with one or more of halo, hydroxyl,

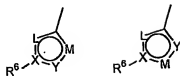
$\text{C}_{1-6}$  alkyl,  $\text{C}_{1-6}$  haloalkyl,  $\text{C}_{1-8}$  alkoxy,  $\text{C}_{1-6}$  haloalkoxy,  $\text{C}_{2-6}$  alkenyl,  $\text{C}_{2-6}$  haloalkenyl,

$\text{C}_{2-6}$  alkynyl or  $\text{C}_{2-6}$  haloalkynyl;

$\text{R}_3$  is hydrogen; a cyclic alkyl radical containing from 3-6 carbon atoms or a  $\text{C}_{1-6}$  alkyl;

$\text{R}_4$  is hydrogen or lower alkyl;

$\text{R}_5$  is a 5-membered unsaturated heterocyclic ring having one of the following structures:



where L and M are independently O or N (or NH where the circumstances require) with the proviso that both of L and M cannot be O; Y is S, CH, O or N (or NH where the circumstances require); X is C or N; and

R<sub>6</sub> is lower alkyl; hydrogen; arylamino optionally substituted with one or more of halo, hydroxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> haloalkenyl, C<sub>2-6</sub> alkynyl or C<sub>2-6</sub> haloalkynyl; aralkyl optionally substituted with one or more of halo, hydroxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> haloalkenyl, C<sub>2-6</sub> alkynyl or C<sub>2-6</sub> haloalkynyl; or a group of formula:



wherein n is an integer in the range from 1 to 4 and HET is a heterocyclic group optionally substituted with one or more of halo, hydroxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> haloalkenyl, C<sub>2-6</sub> alkynyl or C<sub>2-6</sub> haloalkynyl;

or R<sub>5</sub> may also be C<sub>2</sub>-C<sub>4</sub>-aralkyl, -CH<sub>2</sub>-O-R<sub>7</sub> where R<sub>7</sub> is C<sub>1-6</sub> alkyl, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> alkynyl, C<sub>2</sub>-C<sub>4</sub> aralkyl which groups may be optionally substituted with fluoro or hydroxy; and

R<sub>8</sub> is hydrogen or aryl (optionally substituted with one or more of halo, hydroxyl, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> haloalkenyl, C<sub>2-6</sub> alkynyl or C<sub>2-6</sub> haloalkynyl);

with the proviso that when either R<sub>3</sub> or R<sub>8</sub> is not hydrogen, the other is hydrogen.

2. (original) A compound according to claim 1, in which

G is O;

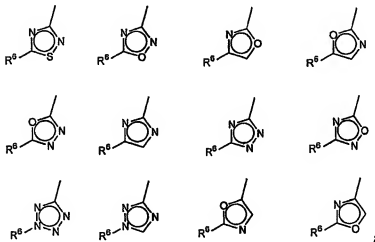
R<sub>1</sub> is H or lower alkyl;

R<sub>2</sub> is C<sub>1-8</sub> alkyl, -CH<sub>2</sub>-aryl or a -CH<sub>2</sub>-substituted heterocycle each of which may be optionally substituted with one or more of halo, hydroxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-8</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> haloalkenyl, C<sub>2-6</sub> alkynyl or C<sub>2-6</sub> haloalkynyl;

R<sub>3</sub> is hydrogen, cyclobutyl, cyclopropyl, methyl, ethyl, isopropyl, butyl, sec-butyl;

R<sub>4</sub> is hydrogen;

R<sub>5</sub> is one of the following 5-membered unsaturated heterocyclic ring structures:



R<sub>6</sub> is methyl, aralkyl, arylamino, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring;

R<sub>8</sub> is hydrogen, phenyl or halo-substituted phenyl.

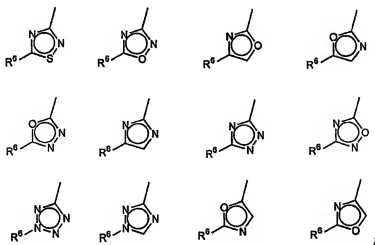
3. (original) A compound according to claim 2, wherein

$R_1$  is H;

$R_2$  is  $-CH_2$ -aryl optionally substituted with one or more of halo, hydroxy,  $C_{1-6}$  alkyl,  $C_{1-6}$  haloalkyl,  $C_{1-8}$  alkoxy,  $C_{1-6}$  haloalkoxy,  $C_{2-6}$  alkenyl,  $C_{2-6}$  haloalkenyl,  $C_{2-6}$  alkynyl or  $C_{2-6}$  haloalkynyl;

$R_3$  is hydrogen or cyclobutyl;

$R_5$  is one of the following 5-membered unsaturated heterocyclic ring structures:



$R_6$  is phenyl, phenylamino substituted by one or more halo, phenylmethyl substituted by one or more halo, or phenethyl substituted by one or more halo;

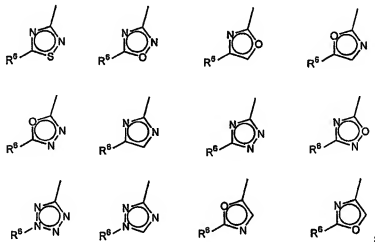
$R_8$  is hydrogen or a fluoro-substituted phenyl.

4. (original) A compound according to claim 3, wherein

$R_2$  is  $-\text{CH}_2-\text{C}_6\text{H}_5$  or  $-\text{CH}_2$ -heterocyclic aryl each of which may be optionally substituted with one or more of halo, hydroxy,  $\text{C}_{1-6}$  alkyl,  $\text{C}_{1-6}$  haloalkyl,  $\text{C}_{1-8}$  alkoxy,  $\text{C}_{1-6}$  haloalkoxy,  $\text{C}_{2-6}$  alkenyl,  $\text{C}_{2-6}$  haloalkenyl,  $\text{C}_{2-6}$  alkynyl or  $\text{C}_{2-6}$  haloalkynyl;

$R_3$  is H;

$R_5$  is one of the following 5-membered unsaturated heterocyclic ring structures:



$R_6$  is a meta chloro-substituted phenylamino, a meta chloro-substituted phenylmethy or a meta chloro-substituted phenethyl;

$R_8$  is 3,5-difluorophenyl.

5. (original) A compound according to claim 1, wherein

A is CH<sub>3</sub>;

B is -CH<sub>2</sub>-;

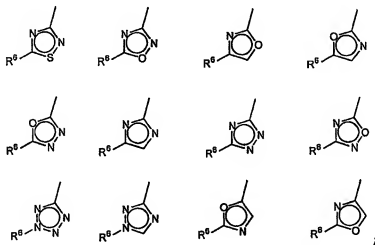
G is oxygen;

R<sub>1</sub> is hydrogen;

R<sub>2</sub> is C<sub>1-10</sub> alkyl or -CH<sub>2</sub>-aryl (optionally substituted by one or more of halo, hydroxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-8</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> haloalkenyl, C<sub>2-6</sub> alkynyl or C<sub>2-6</sub> haloalkynyl);

R<sub>3</sub> is cyclobutyl or H;

R<sub>5</sub> is one of the following 5-membered unsaturated heterocyclic ring structures:



R<sub>6</sub> is methyl, aralkyl, arylamino, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring; and

R<sub>8</sub> is H or phenyl (optionally substituted with halo).

6. (original) A compound according to claim 1, in which A is CH;

B is O;

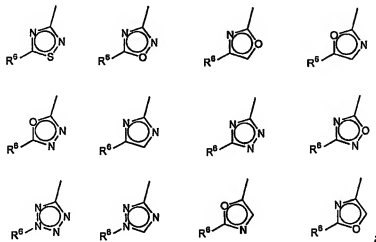
G is oxygen;

R<sub>1</sub> is hydrogen;

R<sub>2</sub> is C<sub>1-10</sub> alkyl, -CH<sub>2</sub>-aryl (optionally substituted by one or more of halo, hydroxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-8</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> haloalkenyl, C<sub>2-6</sub> alkynyl or C<sub>2-6</sub> haloalkynyl);

R<sub>3</sub> is cyclobutyl or H;

R<sub>5</sub> is -CH<sub>2</sub>-O-CH<sub>3</sub>, -CH<sub>2</sub>-O-CH<sub>2</sub>-CH<sub>2</sub>-C<sub>6</sub>H<sub>5</sub> or one of the following 5-membered unsaturated heterocyclic ring structures:



R<sub>6</sub> is methyl, aralkyl, arylamino, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring; and

R<sub>8</sub> is H or phenyl (optionally substituted with halo).

7. (original) A compound according to claim 1, wherein .

A is CH; B is NH;

G is oxygen;

R<sub>1</sub> is hydrogen;

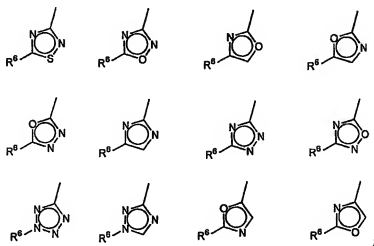
R<sub>2</sub> is C<sub>1-10</sub> alkyl, -CH<sub>2</sub>-aryl, a -CH<sub>2</sub>-heterocyclic group or a -CH<sub>2</sub>-substituted C<sub>5</sub> cycloalkyl (optionally substituted by one or more of halo, hydroxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-8</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> haloalkenyl, C<sub>2-6</sub> alkynyl or C<sub>2-6</sub> haloalkynyl);

R<sub>3</sub> is cyclobutyl or H;

R<sub>4</sub> is hydrogen;

R<sub>5</sub> is -CH<sub>2</sub>-O-CH<sub>3</sub>, -CH<sub>2</sub>-O-CH<sub>2</sub>-CH<sub>2</sub>-C<sub>6</sub>H<sub>5</sub> or one of the following

5-membered unsaturated heterocyclic ring structures:



R<sub>6</sub> is methyl, aralkyl, arylamino, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring; and

R<sub>8</sub> is H or phenyl (optionally substituted with halo).



8. (original) A compound according to claim 1, wherein

A is N;

B is -CH<sub>2</sub>-;

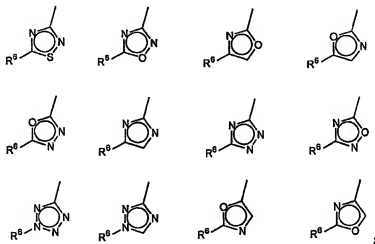
G is oxygen;

R<sub>1</sub> is hydrogen;

R<sub>2</sub> is C<sub>1-10</sub> alkyl, -CH<sub>2</sub>-aryl, a -CH<sub>2</sub>-heterocyclic group or a -CH<sub>2</sub>-substituted C<sub>5</sub> cycloalkyl (optionally substituted one or more of halo, hydroxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-8</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> haloalkenyl, C<sub>2-6</sub> alkynyl or C<sub>2-6</sub> haloalkynyl);

R<sub>3</sub> is cyclobutyl or H;

R<sub>5</sub> is one of the following 5-membered unsaturated heterocyclic ring structures:



R<sub>6</sub> is methyl, aralkyl, arylamino, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl, substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring; and

R<sub>8</sub> is H or phenyl (optionally substituted with halo).

9. (original) A compound according to claim 1, wherein

A is N;

B is -CH<sub>2</sub>-;

G is oxygen;

R<sub>1</sub> is hydrogen;

R<sub>2</sub> is C<sub>1-10</sub> alkyl -CH<sub>2</sub>-aryl, a -CH<sub>2</sub>-heterocyclic group or a -CH<sub>2</sub>-substituted C<sub>5</sub> cycloalkyl (optionally substituted by one or more of halo, hydroxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-8</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> haloalkenyl, C<sub>2-6</sub> alkynyl or C<sub>2-6</sub> haloalkynyl);

R<sub>3</sub> is cyclobutyl or H;

R<sub>5</sub> is -CH<sub>2</sub>-O-CH<sub>3</sub>; and

R<sub>8</sub> is H or phenyl (optionally substituted with halo).

10. (original) A compound according to claim 1, wherein

A is N;

B is -CH<sub>2</sub>-;

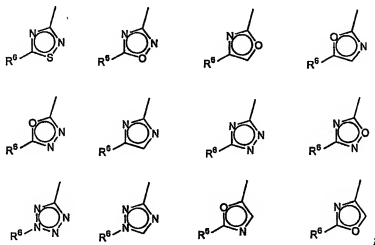
G is oxygen;

R<sub>1</sub> is hydrogen;

R<sub>2</sub> is C<sub>1-10</sub> alkyl, -CH<sub>2</sub>-aryl or a -CH<sub>2</sub>-heterocyclic group, (optionally substituted by one or more of halo, hydroxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-8</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>2-6</sub> alkenyl, C<sub>2-6</sub> haloalkenyl, C<sub>2-6</sub> alkynyl or C<sub>2-6</sub> haloalkynyl);

R<sub>3</sub> is hydrogen or cyclobutyl;

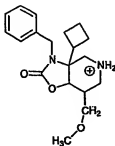
R<sub>5</sub> is one of the following 5-membered unsaturated heterocyclic ring structures:



R<sub>6</sub> is methyl, aralkyl, arylamino, aralkyl substituted by one or more halo and having a methylene group linking the aryl to the unsaturated 5-membered ring, aralkyl substituted by one or more halo and having an ethylene group linking the aryl to the unsaturated 5-membered ring; and

R<sub>8</sub> is phenyl, 3,5-difluorophenyl or H.

11. (original) A compound according to claim 1, having the formula:



12. (previously presented) A pharmaceutical composition comprising a therapeutically effective amount of the compound of claim 1 .
13. (cancel)
14. (currently amended) A method of manufacturing~~Use of a compound in accordance with claim 1 in the manufacture of~~ a medicament for the treatment of disorders caused by the malfunction of the acetylcholine or muscarinic systems comprising the step of placing the compound of claim 1 into a pharmaceutical composition in a unit dosage form.
15. (currently amended) The method~~use~~ of claim 14, wherein the disorder is Alzheimer's disease.
16. (currently amended) A method of treatment, ~~prophylaxis and/or inhibition~~ of disorders caused by the malfunction of the acetylcholine or muscarinic systems comprising the administration of a therapeutically effective amount of a compound as claimed in claim 1 to a subject in need thereof.